

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

521,786

PCT/FR2003/002417



Rec'd PCT/PTO 21 JAN 2005

Applicant's or agent's file reference MA2-02048PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/002417	International filing date (day/month/year) 30 juillet 2003 (30.07.2003)	Priority date (day/month/year) 31 juillet 2002 (31.07.2002)
International Patent Classification (IPC) or national classification and IPC B60J 10/02		
Applicant SAINT-GOBAIN GLASS FRANCE		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of        sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 02 octobre 2003 (02.10.2003)	Date of completion of this report 31 August 2004 (31.08.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/002417

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_ 1-31 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages \_\_\_\_\_ 1-32 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
pages \_\_\_\_\_ 1/11-11/11 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	4-7, 9-13, 15-22, 26, 29-32	YES
	Claims	1-3, 8, 14, 23-25, 27, 28	NO
Inventive step (IS)	Claims	16-22, 26	YES
	Claims	4-7, 9-13, 15, 29-32	NO
Industrial applicability (IA)	Claims	1-32	YES
	Claims		NO

**2. Citations and explanations**

- 1** Reference is made to the following documents.  
Documents D1, D2, D5 and D6 have not been cited in the international search report.
- D1: EP 0 696 523 A1 (DONNELLY CORP) 14 February 1996  
(1996-02-14)
- D2: JP 2000 27 29 36 A (SEKISUI CHEM CO LTD) 3  
October 2000 (2000-10-03)
- D3: US 2001/0051260 A1 (JOHNSON MICHAEL A ET AL) 13  
December 2001 (2001-12-13)
- D4: JP 63 192608 A (MAZDA MOTOR CORP), 10 August  
1988 (1988-08-10)
- D5: US 5632835 A1 (NIWA ET AL) 27 May 1997 (1997-05-  
27)
- D6: MOHAN D. Rao et al.: "Vibration testing and  
dynamic modeling of automotive shock absorbers",  
Smart Structures and Materials 2000: Damping and  
Isolation, Newport Beach, CA, USA, 6-8 March  
2000, Proceedings of the SPIE, pages 423-429
- 2** Claims 1, 2 and 29 do not meet the requirements of  
PCT Article 6, inasmuch as the subject matter for  
which protection is sought is not clearly defined.

Claim 1 attempts to define this subject matter by the result to be obtained, see "The profiled member has an equivalent actual stiffness per unit length ( $K'_{eq}$ ) of at least 25 MPa and an equivalent loss factor ( $\tan\delta_{eq}$ ) of at least 0.25", without defining the technical features required to achieve this result. Furthermore, neither this claim nor claim 29 defines how the equivalent actual stiffness per unit length is calculated. A similar objection applies to claim 2.

- 3 The invention according to claims 1-3, 8, 14, 23-25, 27 and 28 of the application cannot be considered novel (PCT Article 33(2)) for the following reasons:

Document D1 discloses (the references between parentheses apply to this document) a profiled member (figure 2, reference 26) to be inserted between two elements (figure 2, references 12 and 16) to attenuate sounds travelling through one of the elements (see page 2, lines 44-49), the profiled member being made of a plastic-based damping material (page 11, lines 11-12). The profiled member has a loss factor of at least 0.25 at a temperature of approximately 0°C (see graph 102 of figure\_9, and page 12, line 56). At this temperature the modulus of elasticity is 100 MPa (see graph 100 of figure 9, and page 12, line 55), which corresponds to an equivalent actual stiffness per unit length of approximately 100 MPa, because the width and thickness of the profiled member have approximately the same value (see page 5, lines 26-33).

The subject matter of claim 1 is therefore not

novel.

The profiled member of document D1 is used in a vehicle (page 2, line 3) made of a single damping thermoplastic elastomeric material applied on to one of the elements by injection molding (page 11, lines 11-12), and the section is even over its length (figure 2, reference 26).

The subject matter of claims 3, 14, 23, 24 and 27 is therefore not novel.

Document D2 discloses a profiled member inserted between two glass elements (D2, paragraph [0001]); the profiled member is made of two damping materials (D2, paragraph [0022]) with a loss factor of at least 0.5 (D2, paragraphs [0020]-[0022]). D2 also describes a profiled member consisting of an ethylene vinyl acetate copolymer (paragraphs [0042]-[0044]), which is known to have a modulus of elasticity of between 50 and 200 MPa.

The subject matter of claims 2, 3, 8, 25 and 28 is therefore not novel.

- 4 The invention according to claims 4-7, 9-13, 15 and 29-32 of the application cannot be considered inventive (PCT Article 33(3)) for the following reasons:

Claims 4-7, 13: It is well known to use adhesives (see D3, paragraphs [0047], [0101]-[0108]).

Claims 9-12: Document D4 discloses two damping

materials and an adhesive, in juxtaposition and separated by an air gap (D4, figure 2, references 3-5).

Claim 15: It is known to add organic fillers to a profiled member (D5, claim 1).

Claims 29-32: It is known to assess vibration damping properties in terms of their stiffness per unit length (see document D6, abstract).